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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/766,159

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Wen Tong

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Bruce E. Garlick  
Garlick & Harrison  
P.O. Box 691  
Spicewood, TX 78669-0691

EXAMINER

WAHBA, ANDREW W

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/766,159

Applicant(s)

TONG ET AL.

Examiner

Andrew W Wahba

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-18, 21-24 and 28-32 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 19, 20 and 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9-17 and 23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 9, the applicant claims "a packet that includes a plurality of frames" (line 2) as illustrated by the applicant in Fig 4. In claim 1, however, the applicant claims "allocating frames in a subsequent communication" (line 10). The manner in which the term frames is used is different in claim 9 than in its original use in claim 1. In claim 1, frames are "allocated" or provided for communication. In claim 9, a frame is a portion of data that is part of a packet, and thus cannot be allocated to provide communication.

With regard to claim 23, the applicant claims "voice communications and the data communications are received on separate carriers" (lines 1-2). In claim 21, the applicant claims "communication on at least one of the carriers" (line 8). Whereas claim 23 requires two carriers, claim 21 requires one.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-6, 18, 29 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Schramm et al (US Patent 6,572,742).

With regard to claim 1, Schramm et al discloses a cell selection method for cell handover in mobile telecommunications systems as illustrated by Fig. 3a. Schramm et al discloses step 320 that measures link quality (receiving channel quality indications), such as signal strength, carrier-to-interference, or BER, from BS candidates (plurality of carriers) (column 6, lines 4-10). At step 310, the mobile station (plurality of user terminals) capabilities are checked, such as supported coding schemes, supported modulation schemes, multi-carrier capability (plurality of carriers), and multi-slot capability (column 5, lines 60-67). Schramm's telecommunication system has many mobile stations (column 6, lines 49-51). At step 330, Schramm et al estimates the QoS value for each possible connection, and handover is performed to the cell providing the best QoS (column 6, lines 11-23). As a part of a handover, frames are allocated enabling the base station and the mobile terminal to communicate. Schramm defines QoS as a measure of bit/data rate or throughput (determining maximum data rate) (column 3, lines 15-16).

With regard to claims 2 and 18, at step 330, Schramm et al estimates the QoS value for each possible connection, and handover is performed (allocating) to the cell

providing the best QoS (best channel quality indication) (column 6, lines 11-23).

Schramm defines QoS as a measure of bit/data rate or throughput (maximize throughput) (column 3, lines 15-16). Schramm further discloses that in selecting the base station with the best QoS, step 345 may additionally take into account system criteria (service criteria) such as load and interference level (column 6, lines 37-30).

With regard to claims 3 and 4, Schramm discloses that a MS has higher priority level than another MS (user terminal subscription levels / fairness in resource allocation) (column 48-51).

With regard to claims 5 and 6, Schramm discloses a handover method in the context of a GSM system and suggests that it is applicable to other types of systems. It is inherent that a GSM system and the other suggested types are capable of supporting both voice and data communications (column 3, lines 52-55). Accordingly, voice and data communications can occur in different channels provided by the base station.

With regard to claim 29 and 31, the claimed antenna, RF unit and digital processor are inherent to a base station. Schramm et al discloses step 320 that measures link quality (receiving channel quality indications), such as signal strength, carrier-to-interference, or BER, from BS candidates (plurality of carriers) (column 6, lines 4-10). At step 310, the mobile station (plurality of user terminals) capabilities are checked, such as supported coding schemes, supported modulation schemes, multi-carrier capability (plurality of carriers), and multi-slot capability (column 5, lines 60-67). Schramm's telecommunication system has many mobile stations (column 6, lines 49-51). At step 330, Schramm et al estimates the QoS value for each possible connection,

and handover is performed to the cell providing the best QoS (column 6, lines 11-23).

As a part of a handover, frames are allocated enabling the base station and the mobile terminal to communicate. Schramm defines QoS as a measure of bit/data rate or throughput (determining maximum data rate) (column 3, lines 15-16).

5. Claims 21-24, 30 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Vanghi (US Patent 6,393,276). Vanghi discloses a CDMA communications system.

With regard to claim 21, Vanghi discloses step 122 in which a mobile station reports received pilot channel (receiving a plurality of pilot signals) SNR (plurality of channel quality indications) for all base stations to the base station controller (reporting) (column 5, lines 46-52). In step 126, the base station controller sets the number of transmit connections and data rate (column 5, lines 56-59).

With regard to claim 22, Vanghi communicates both voice and data (column 5, lines 26).

With regard to claims 23 and 24, voice and data communications may occur on either common or separate carriers.

With regard to claim 30 and 32, the claimed antenna, RF unit and digital processor are inherent to a user terminal. Vanghi discloses step 122 in which a mobile station reports received pilot channel (receiving a plurality of pilot signals) SNR (plurality of channel quality indications) for all base stations to the base station controller

(reporting) (column 5, lines 46-52). In step 126, the base station controller sets the number of transmit connections and data rate (column 5, lines 56-59).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Vanghi in view of Schramm et al. With regard to claim 28, Vanghi does not disclose receiving communications on a carrier having the best channel quality.

At step 330, Schramm et al estimates the QoS value for each possible connection, and handover is performed (allocating/transmitting) to the cell providing the best QoS (column 6, lines 11-23).

A person of ordinary skill in the art would have been motivated to employ Schramm et al in Vanghi to maximize throughput. Schramm defines QoS as a measure of bit/data rate or throughput (determining maximum data rate) (column 3, lines 15-16).

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Schramm et al in Vanghi so as to obtain the invention as specified in claim 28.

***Allowable Subject Matter***

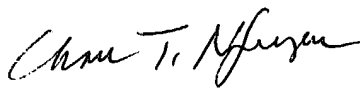
8. Claims 7,8,19,20 and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (703) 305-4684. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Wahba  
August 3, 2004



CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600